

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method, of manufacturing an exhaust gas purifying filter capable of capturing particulates in an exhaust gas discharged from an internal combustion engine to thereby purify the exhaust gas, said method comprising the steps of:

setting a molding die wherein a tapered jig, having (1) a plurality of tapered molding surfaces formed in tapered shape so as to be inclined relative to an extrusion direction of a filter-providing molding material, [[and]] (2) first through-holes extending from a top planer surface of the tapered jig opposed to the molding die to a surface of the tapered jig other than said top planer surface, and (3) second through-holes penetrating from tips of protrusions disposed in the tapered mold surfaces and projecting in a direction toward the molding die, to said other surface is disposed in opposition to an extrusion port consisting of opened slits in a molding die, said slits being formed in the shape of honeycomb, and said plurality of tapered molding surfaces are positioned so as to be aligned with said slits of said molding die in the extrusion direction of the molding material;

forming tapered plugs wherein the molding material is extruded from said slits of the molding die so as to form a honeycomb-like molded article having a plurality of cells separated by partitions, the front end of the honeycomb-like molded article is introduced into said tapered jig, and then, by deflecting the front end of said partitions along said plurality of tapered molding surfaces of the tapered jig, a plurality of tapered plugs are formed in which said plugs have small openings which are produced upon size reduction of the openings of said cells;

moving said tapered jig wherein said tapered jig is moved in the extrusion direction of the molding material at a speed equal to or higher than the extrusion speed of said molding material;

cutting the molded article wherein, after said molding material is extruded at a predetermined extrusion length, said honeycomb-like molded article is cut at a predetermined length; and

fitting plugs wherein, after cutting, the honeycomb-like molded article is dried and fired and then plugs are fitted into said small openings at the front end of the molded article and into said openings of the cells at the rear end of the molded article.

2. (original) A manufacturing method according to claim 1, wherein the movement of said tapered jig in the jig movement step is synchronized with the extrusion of said molding material.

3. (previously presented) A manufacturing method according to claim 1, wherein said tapered jig comprises protrusions, projecting in the direction toward said molding die, at positions opposed the portions used in the formation of said small openings.

Claim 4. (canceled).

5. (previously presented) A manufacturing method according to claim 1, wherein said molding material is a ceramic material.

6. (original) A manufacturing method according to claim 5, wherein said ceramic material comprises at least one member selected from the group consisting of talc, silica, kaolin, alumina and aluminum hydroxide.

7. (previously presented) A manufacturing method according to claim 5, wherein said ceramic material further comprises a pore-providing material.

8. (original) A manufacturing method according to claim 7, wherein said pore-providing material is carbon, a resin or a mixture thereof.

9. (original) A manufacturing method according to claim 8, wherein said resin is at least one thermoplastic resin selected from the group consisting of acrylic resin, poly(methyl stearate) resin and vinyl chloride resin.

10. (previously presented) A manufacturing method according to claim 5, wherein said ceramic material further comprises an organic binder.

11. (original) A manufacturing method according to claim 10, wherein said organic binder is methyl cellulose, hydroxymethyl cellulose or a mixture thereof.

12. (previously presented) A manufacturing method according to claim 1, wherein said die setting step, said tapered plug formation step, said jig movement step and said cutting step are repeated to produce a plurality of honeycomb-like molded articles having the same structure using one molding die.

Claim 13. (canceled).

14. (previously presented) A manufacturing method according to claim 1, wherein said honeycomb-like molded article has cells, the cross-section of which is substantially a triangle.

15. (previously presented) A manufacturing method according to claim 1, wherein said exhaust gas purifying filter is disposed in an exhaust gas conduit from said internal combustion engine in such a manner that the front end, inclusive of said tapered plugs, of said filter is opposed to an upstream side of said exhaust gas conduit.

16. (previously presented) A manufacturing method according to claim 1, wherein the internal combustion engine is a diesel engine.

17. (previously presented) A manufacturing method according to claim 3, wherein said protrusions extend to a plane of said top planer surface of the tapered jig.

18. (previously presented) A method, of manufacturing an exhaust gas purifying filter capable of capturing particulates in an exhaust gas discharged from an internal combustion engine to thereby purify the exhaust gas, said method comprising the steps of:

setting a molding die wherein a tapered jig, having (1) a plurality of tapered molding surfaces formed in tapered shape so as to be inclined relative to an extrusion direction of a filter-providing molding material, and (2) protrusions defining through-holes extending from apexes of at least some of said tapered molding surfaces toward the molding die, is disposed in opposition to an extrusion port consisting of opened slits in a molding die, said slits being formed in the shape of honeycomb, said plurality of tapered molding surfaces are positioned so as to be aligned with said slits of said molding die in the extrusion direction of the molding material;

forming tapered plugs wherein the molding material is extruded from said slits of the molding die so as to form a honeycomb-like molded article having a plurality of cells separated by partitions, the front end of the honeycomb-like molded article is introduced into said tapered jig, and then, by deflecting the front end of said partitions along said plurality of tapered molding surfaces of the tapered jig, a plurality of tapered plugs are formed in which said plugs have small openings which are produced upon size reduction of the openings of said cells;

moving said tapered jig wherein said tapered jig is moved in the extrusion direction of the molding material at a speed equal to or higher than the extrusion speed of said molding material;

cutting the molded article wherein, after said molding material is extruded at a predetermined extrusion length, said honeycomb-like molded article is cut at a predetermined length; and

fitting plugs wherein, after cutting, the honeycomb-like molded article is dried and fired and then plugs are fitted into said small openings at the front end of the molded article and into said openings of the cells at the rear end of the molded article.

19. (previously presented) A manufacturing method according to claim 18, wherein said protrusions extend to a plane of a top planer surface of said tapered jig.

20. (previously presented) A manufacturing method according to claim 18, wherein movement of said tapered jig in the jig movement step is synchronized with the extrusion of said molding material.

21. (previously presented) A manufacturing method according to claim 18, wherein said molding material is a ceramic material.

22. (previously presented) A manufacturing method according to claim 18, further comprising through-holes extending from a top planer surface of the tapered jig opposed to the molding die to a surface of the tapered jig other than said top planer surface,.